

## CLAIMS

1. A jig for calcining an electronic component comprising a  
5 substrate and a zirconia surface layer formed on the substrate  
and having an arithmetic average roughness "Ra" from 5 to 40  $\mu$  m, or a ten-point average roughness "Rz" from 30 to 130  $\mu$  m, or a  
maximum height "Ry" from 40 to 200  $\mu$  m characterized in that a  
skewness (deflection) "Rsk" of the zirconia surface layer is from  
10 -0.5 to 0.5.
2. A jig for calcining an electronic component comprising a  
substrate, an intermediate layer formed on the substrate and a  
zirconia surface layer formed on the intermediate layer and  
15 having an arithmetic average roughness "Ra" from 5 to 40  $\mu$  m, or  
a ten-point average roughness "Rz" from 30 to 130  $\mu$  m, or a  
maximum height "Ry" from 40 to 200  $\mu$  m, characterized in that a  
skewness (deflection) "Rsk" of the zirconia surface layer is from  
-0.5 to 0.5.
- 20 3. The jig for calcining the electronic component as claimed  
in claim 1 or 2, wherein the zirconia surface layer includes from  
50 to 75 % in weight of coarse particle aggregate having from 80  
to 300 mesh and 50 to 25 % in weight of fine particle bond phase  
25 having an average particle size from 0.1 to 10  $\mu$  m.

characterized in that a wear resistance in a reciprocating wear test conducted in accordance with JIS-H8503 is from 10 to 200 (DS/mg).

5 12. The jig for calcining the electronic component as claimed in claim 10 or 11, wherein the zirconia surface layer includes from 50 to 75 % in weight of coarse particle aggregate having from 80 to 300 mesh and 50 to 25 % in weight of fine particle  
10 bond phase having an average particle size from 0.1 to 10  $\mu$  m bonded with each other by a sintering aid made of two or more metal oxides for increasing the wear resistance.

13. A jig for calcining an electronic component comprising a substrate and a zirconia surface layer formed on the substrate,  
15 characterized in that a thermal shock resistance  $\Delta T$  ( $=T_1-T_2$ ) is 400°C or more expressed as a temperature difference of rapid cooling which generates strength reduction in a rapid cooling bending test where the jig for calcining the electronic component is rapidly cooled from specified temperature  $T_1$  to  $T_2$ .

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14. A jig for calcining an electronic component comprising a substrate, an intermediate layer formed on the substrate and a zirconia layer formed on the intermediate layer, characterized in that a thermal shock resistance  $\Delta T$  is 400°C or more.

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15. The jig for calcining the electronic component as claimed in claim 13, wherein a thickness of the zirconia layer formed on the substrate is  $500\mu\text{m}$  or less, and a relative density of the zirconia surface layer is between 40 % and 80% both inclusive.

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16. The jig for calcining the electronic component as claimed in claim 14, wherein a total thickness of the zirconia layer formed on the alumina intermediate layer (alumina intermediate layer + zirconia layer) is  $500\mu\text{m}$  or less; a relative density of the zirconia layer is between 40 % and 80% both inclusive; and a relative density of the alumina intermediate layer is between 60 % and 90% both inclusive.

17. The jig for calcining the electronic component as claimed in claim 13 or 14, wherein metal oxides are used as a sintering aid for calcining the zirconia layer coated on the substrate surface, alumina intermediate layer coated on the substrate surface, and the zirconia layer coated on the alumina intermediate layer.

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